AMENDED CLAIMS

1. An isolated human protein or an analogue or variant thereof capable of participating in the human PTCH/SHH pathway during embryonic development and/or carcinogenesis, which is essentially comprised of SEQ ID NO: 1.

2. A nucleic acid encoding a protein according to claim 1.

3. An isolated variant of the nucleic acid according to claim 2.

4. An isolated nucleic acid capable of specifically hybridising to a nucleic acid according to claim 2 or 3.

5. A protein according to claim 1 or a nucleic acid according to any one of claims 2-4 for use as a medicament.

6. Use of a protein according to claim 1 or a nucleic acid according to any one of claims 2-4 in the manufacture of a medicament for the treatment of a condition involving tumors, such as BSS.

7. A method of in vitro or in vivo diagnosis, wherein a protein according to claim 1 or a nucleic acid according to any one of claims 2-4 is used.

8. A method of screening wherein a library of suitable candidate compounds is screened for modified drugs using a protein according to claim 1 as a lead compound.

9. A method of synthesis of a modified drug, wherein a protein according to claim 1 is used.

10. A modified drug identified by the method according to claim 8 or synthesized according to claim 9.

11. A vector comprising a nucleic acid according to any one of claim 2-4.

12. A recombinant cell comprising a vector according to claim 11.

13. An antibody which specifically binds to a protein according to claim 1.

14. A recombinant cell expressing an antibody according to claim 13.

15. A kit for the detection of a human PTCH2 gene or polypeptide comprising in a container a molecule selected from the group consisting of a nucleic acid according to any one of claims 2-4, a protein according to claim 1 or an antibody according to claim 13.

16. Use of a nucleic acid according to any one of claims 2-4 in gene therapy.

AMENDED SHEET

17. Use of nucleic acid according to any one of claims 2-4 as a probe, a primer or a diagnostic reagent.